Amendments to the Claims

1. (Currently amended) A light-emitting diode characterized by comprising:

an electron injecting electrode, that is, an n-electrode;

a hole injecting electrode, that is, a p-electrode; and

an inorganic light-emitting layer, wherein the light-emitting layer (1) formed of an ambipolar inorganic material, (2) is disposed between the n-electrode and the p-electrode so as to respectively contact the n-electrode and the p-electrode in a non-barrier junction manner such that the ambipolar inorganic material conducts both electrons injected from the n-electrode and holes injected from the p-electrode, and (3) ~~is formed of an ambipolar inorganic semiconductor material and~~ has a thickness in a range of 10 nm or more and 10 μm or less,

wherein the ambipolar inorganic semiconductor material is selected from the group consisting of (a) a group II-VI compound and (b) Zn and at least one element selected from the group consisting of S, Se and Te.

2. (Currently amended) The light-emitting diode according to claim 1, characterized in that

~~the ambipolar inorganic semiconductor material has~~ the inorganic light-emitting layer consists of a semiconducting material having a dopant concentration of 0.1% or less in atomic ratio.

3. (Canceled)

4. (Currently amended) The light-emitting diode according to ~~either of~~ claims 1

[[and]] or 2, characterized in that

the n-electrode includes a layer ~~formed by use of~~ comprising an n-type inorganic semiconductor material comprising ~~in which~~ an n-type dopant ~~is diffused into~~ and the ambipolar inorganic semiconductor material.

5. (Currently amended) The light-emitting diode according to ~~either of~~ claims 1 [[and]] or 2, characterized in that

the p-electrode includes a layer ~~formed by use of~~ comprising a p-type inorganic semiconductor material ~~in which~~ comprising a p-type dopant ~~is diffused into~~ and the ambipolar inorganic semiconductor material.

6. (Currently amended) The light-emitting diode according to ~~either of~~ claims 1 [[and]] or 2, characterized in that

the n-electrode includes a first layer ~~formed by use of~~ comprising an n-type inorganic semiconductor material ~~in which~~ comprising an n-type dopant ~~is diffused into~~ and the ambipolar inorganic semiconductor material, and the p-electrode includes a second layer ~~formed by use of~~ comprising a p-type inorganic semiconductor material ~~in which~~ comprising a p-type dopant ~~is diffused into~~ and the ambipolar inorganic semiconductor material.

7. (Currently amended) The light-emitting diode according to ~~either of~~ claims 1 [[and]] or 2, characterized in that

a material of a portion contacting the light-emitting layer in at least one of the n-electrode and the p-electrode is formed by use of a material substantially different from the material of the light-emitting layer.

8. (Currently amended) The light-emitting diode according to ~~either of~~ claims 1 [[and]] or 2, characterized in that

the ambipolar inorganic semiconductor material is formed on a crystalline substrate or a glass substrate, and the n-electrode and the p-electrode are formed on opposing sides of the ambipolar inorganic semiconductor material, wherein the n-electrode and the p-electrode do not contact each other.

9. (Currently amended) The light-emitting diode according to ~~either of~~ claims 1 [[and]] or 2, characterized in that

a first one of the n-electrode and the p-electrode is formed on a crystalline substrate or a glass substrate, and the ambipolar inorganic semiconductor material is stacked thereon, and a second one of the p-electrode and the n-electrode is stacked thereon.

10. (Canceled)

11. (Previously presented) The light emitting diode according to claim 1, wherein the light-emitting layer has a uniform composition across its thickness.

12. (Previously presented) The light emitting diode according to claim 1, wherein only one such light-emitting layer is formed between the p-electrode and the n-electrode.

13. (Currently amended) A light-emitting diode, comprising:

an electron injecting n-electrode;

a hole injecting p-electrode;

an ambipolar light-emitting layer ~~uniformly~~ continuously extending from the n-electrode to the p-electrode, consisting of an ambipolar semiconducting material which conducts both electrons injected by the n-electrode and holes injected by the p-electrode, having a thickness in a range of greater than 10 nm and no more than 100 nm, and comprising ~~one~~ a first ambipolar semiconductor material selected form the group ~~cconsisting~~ consisting of (a) a group II-VI compound and (b) Zn and at least one element selected from the group consisting of S, Se and Te.

14. (Currently amended) The light-emitting diode of claim 13, wherein the ambipolar light-emitting layer consists of the ~~one~~ first ambipolar semiconductor material.

15. (Currently amended) The light-emitting diode of claim 13, wherein the ~~one~~ first ambipolar semiconductor material is Zn and at least one element selected from the group consisting of S, Se and Te.

16. (New) The light-emitting diode of claim 13, wherein the ambipolar light-emitting layer includes no quantum well and associated barriers.

17. (New) The light-emitting diode according to claim 1, wherein the light-emitting layer consists essentially of the ambipolar inorganic semiconductor material.

18. (New) A light-emitting diode characterized by comprising:

an electron injecting electrode, that is, an n-electrode;

a hole injecting electrode, that is, a p-electrode; and

an inorganic light-emitting layer, wherein the light-emitting layer is disposed between the n-electrode and the p-electrode so as to respectively contact the n-electrode and the p-electrode and is formed of an ambipolar inorganic semiconductor material and has a thickness in a range of 10 nm or more and 10 μm or less,

wherein the ambipolar inorganic semiconductor material is selected from the group consisting of (a) a group II-VI compound and (b) Zn and at least one element selected from the group consisting of S, Se and Te,

wherein the n-electrode has a work function lower than a conduction band edge energy of the ambipolar inorganic semiconductor material, and

wherein the p-electrode has a work function higher than the conduction band edge energy of the ambipolar inorganic semiconductor material.